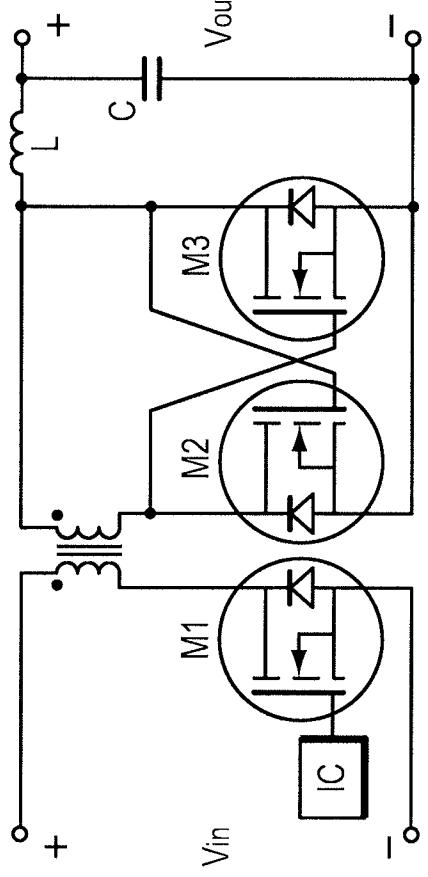


SELF-DRIVEN SYNCHRONOUS RECTIFICATION  
ISOLATED FORWARD CONVERTER

FIG. 1A



IC-DRIVEN SYNCHRONOUS RECTIFICATION  
ISOLATED FORWARD CONVERTER

FIG. 1B

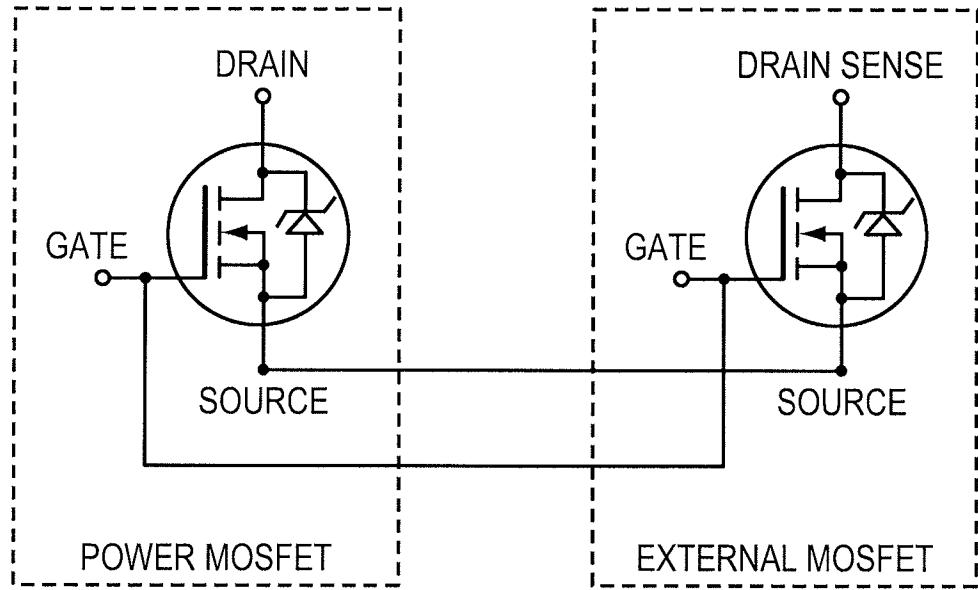


FIG. 2

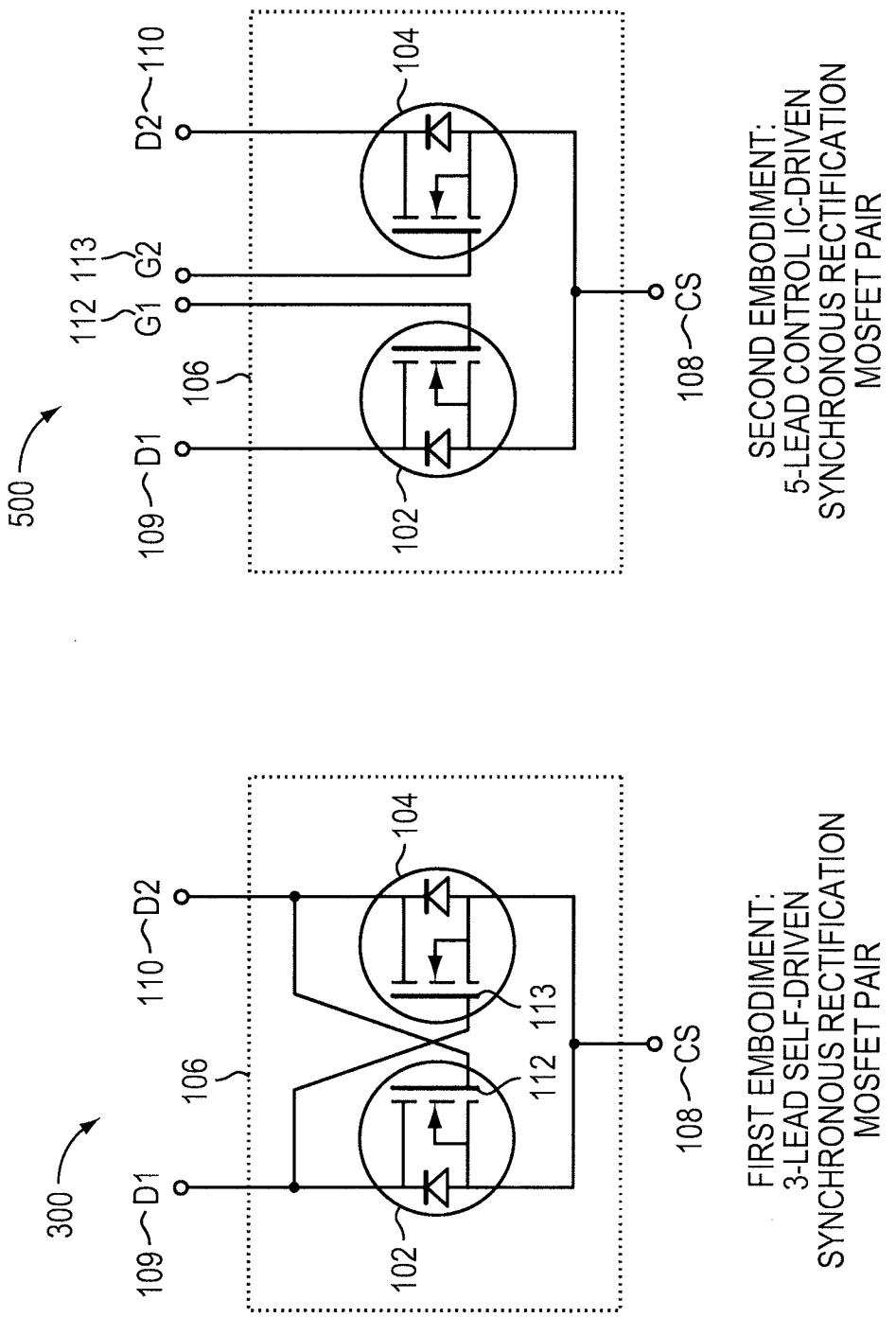


FIG. 3A  
FIG. 3B

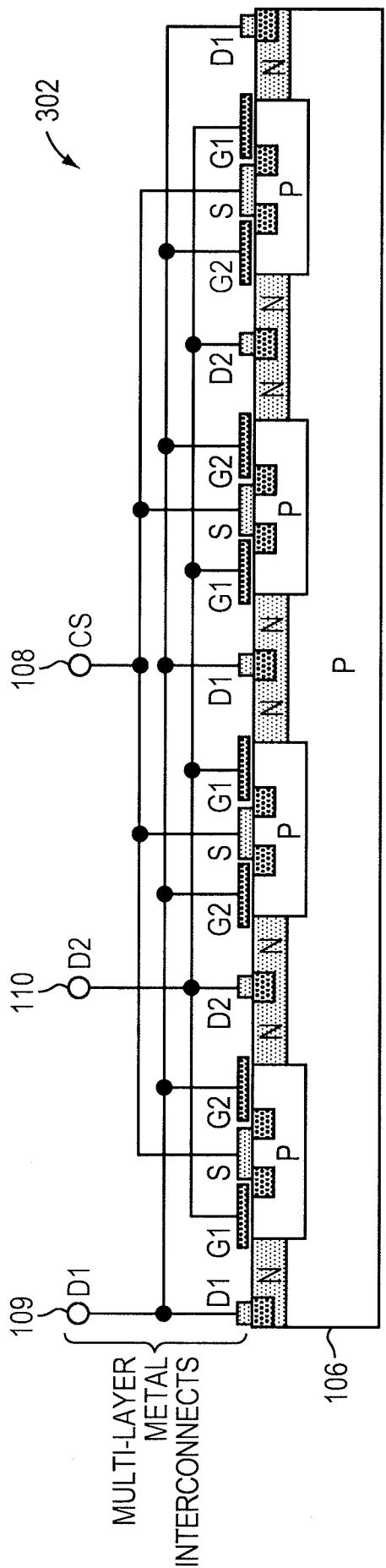
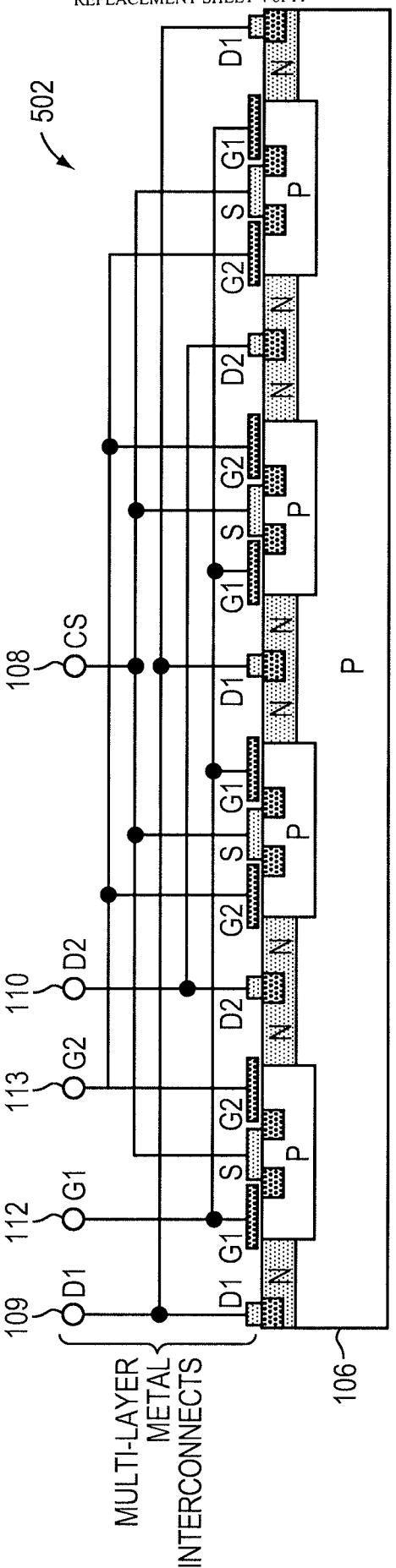


FIG. 4A  
FIRST EMBODIMENT: 3-LEAD SELF-DRIVEN MOSFET PAIR IN INTERLEAVED CELL FINGERS



**FIG. 4B**  
SECOND EMBODIMENT: 5-LEAD EXTERNAL-DRIVEN MOSFET PAIR IN INTERLEAVED CELL FINGERS

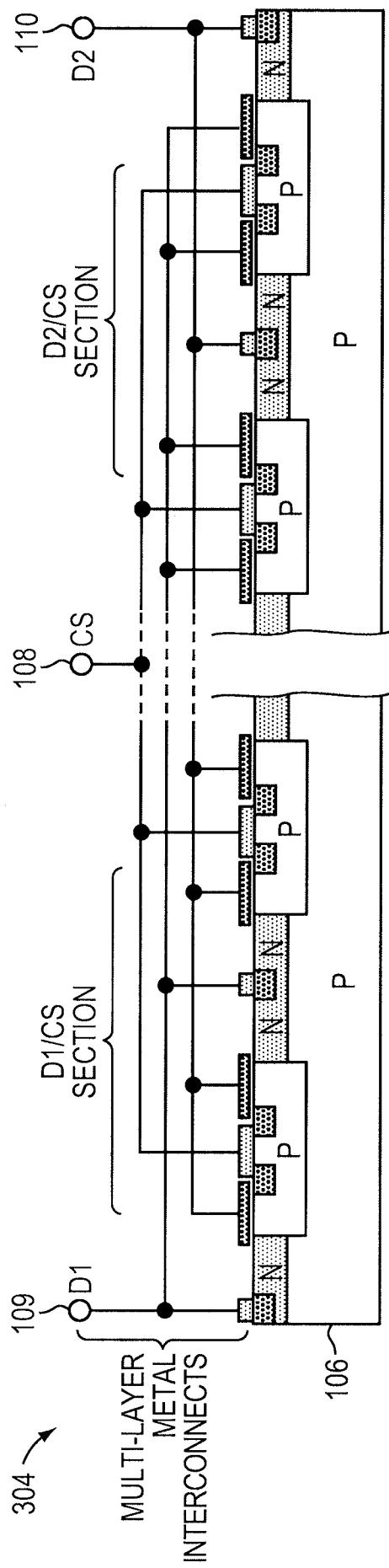


FIG. 5A  
 THIRD EMBODIMENT: 3-LEAD SELF-DRIVEN MOSFET PAIR IN SEPARATE CELL SECTIONS

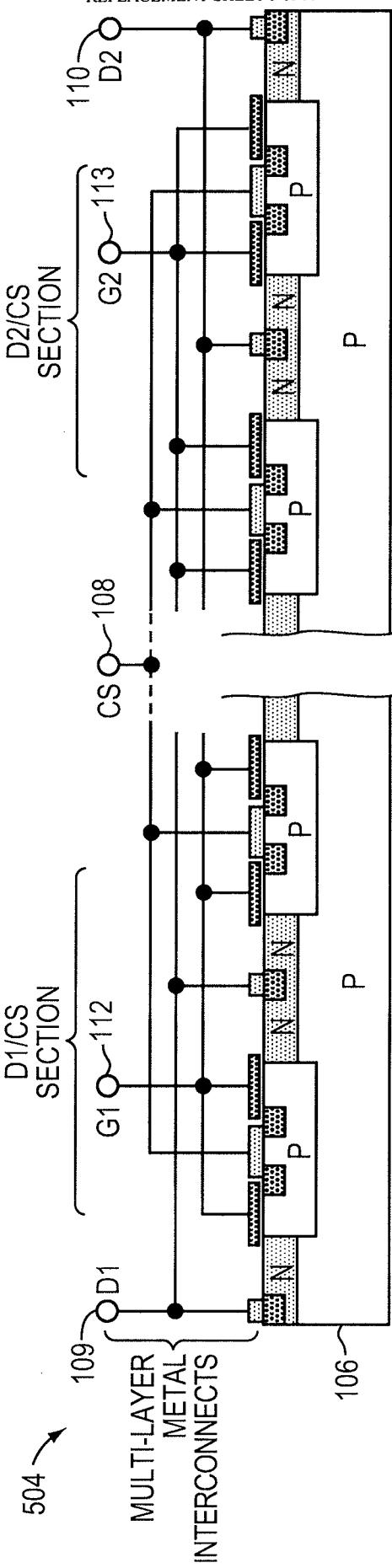


FIG. 5B  
 FOURTH EMBODIMENT: 5-LEAD EXTERNAL-DRIVEN MOSFET PAIR IN SEPARATE CELL SECTIONS

1. DISCRETE POWER SEMICONDUCTOR DEVICE COMPRISED  
OF MULTIPLE TRANSISTORS WITH COMMON SOURCE CONNECTION  
WITH ONE OR MORE TRANSISTORS HAVING  
ELECTRICALLY ISOLATED DRAIN AND GATE CONNECTIONS

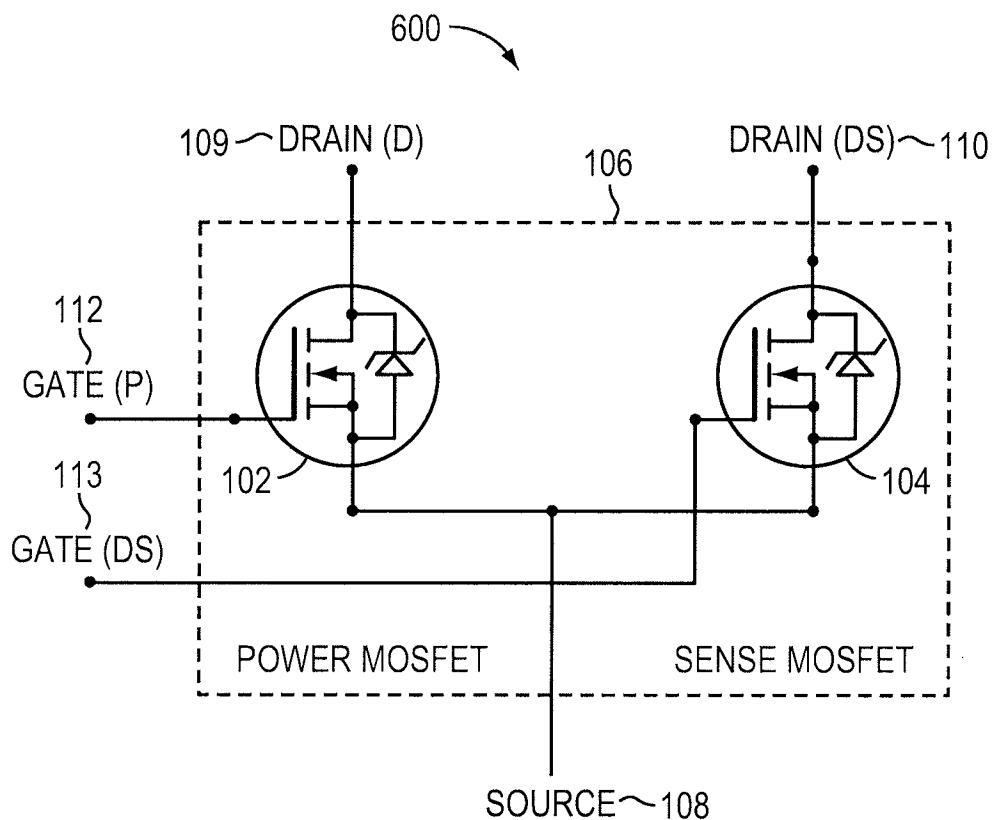


FIG. 6

1. DISCRETE POWER SEMICONDUCTOR DEVICE COMPRISING OF MULTIPLE TRANSISTORS WITH COMMON SOURCE CONNECTION WITH ONE OR MORE TRANSISTORS HAVING ELECTRICALLY ISOLATED DRAIN AND GATE CONNECTIONS

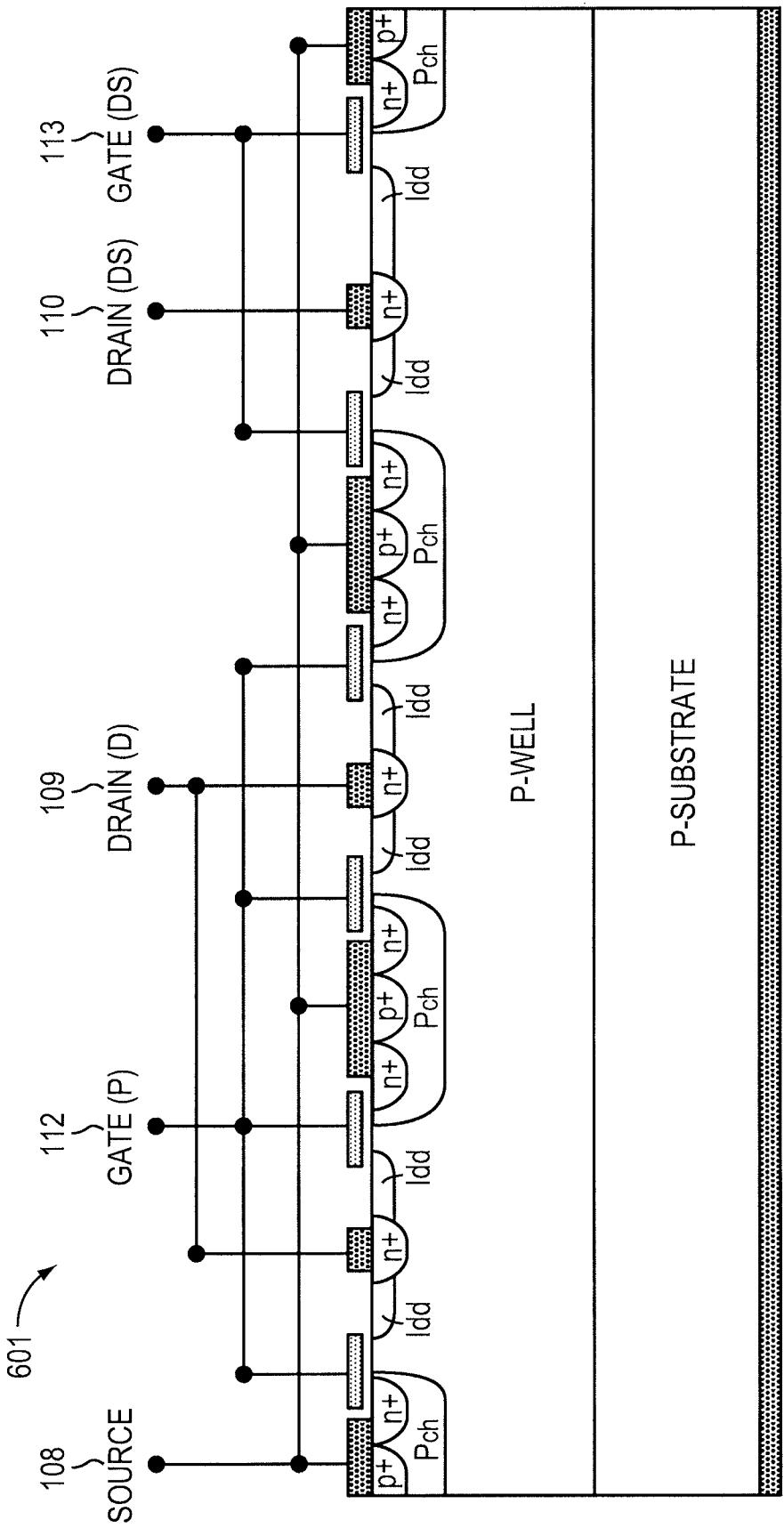


FIG. 7  
CROSS-SECTIONAL DIAGRAM OF A POWER MOSFET WITH INTEGRATED DRAIN SENSE

2. DISCRETE POWER SEMICONDUCTOR DEVICE COMPRISING  
OF MULTIPLE TRANSISTORS WITH COMMON SOURCE AND  
GATE CONNECTIONS WITH ONE OR MORE TRANSISTORS HAVING  
ELECTRICALLY ISOLATED DRAIN CONNECTIONS

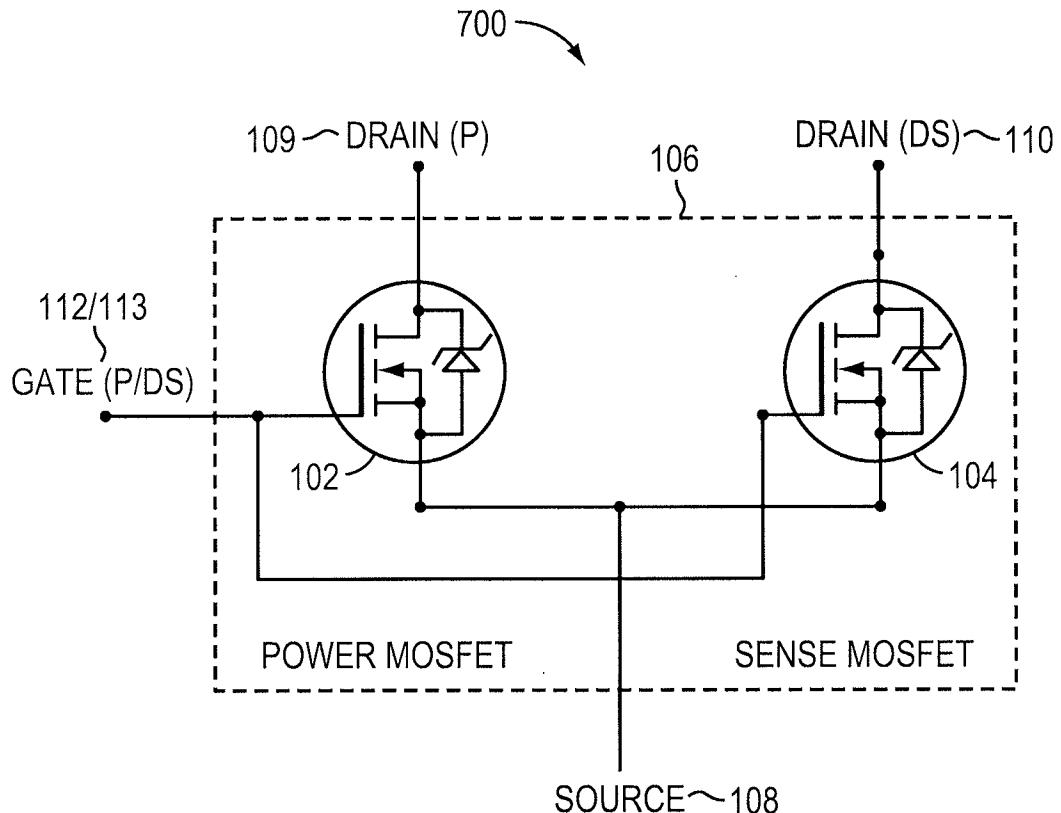
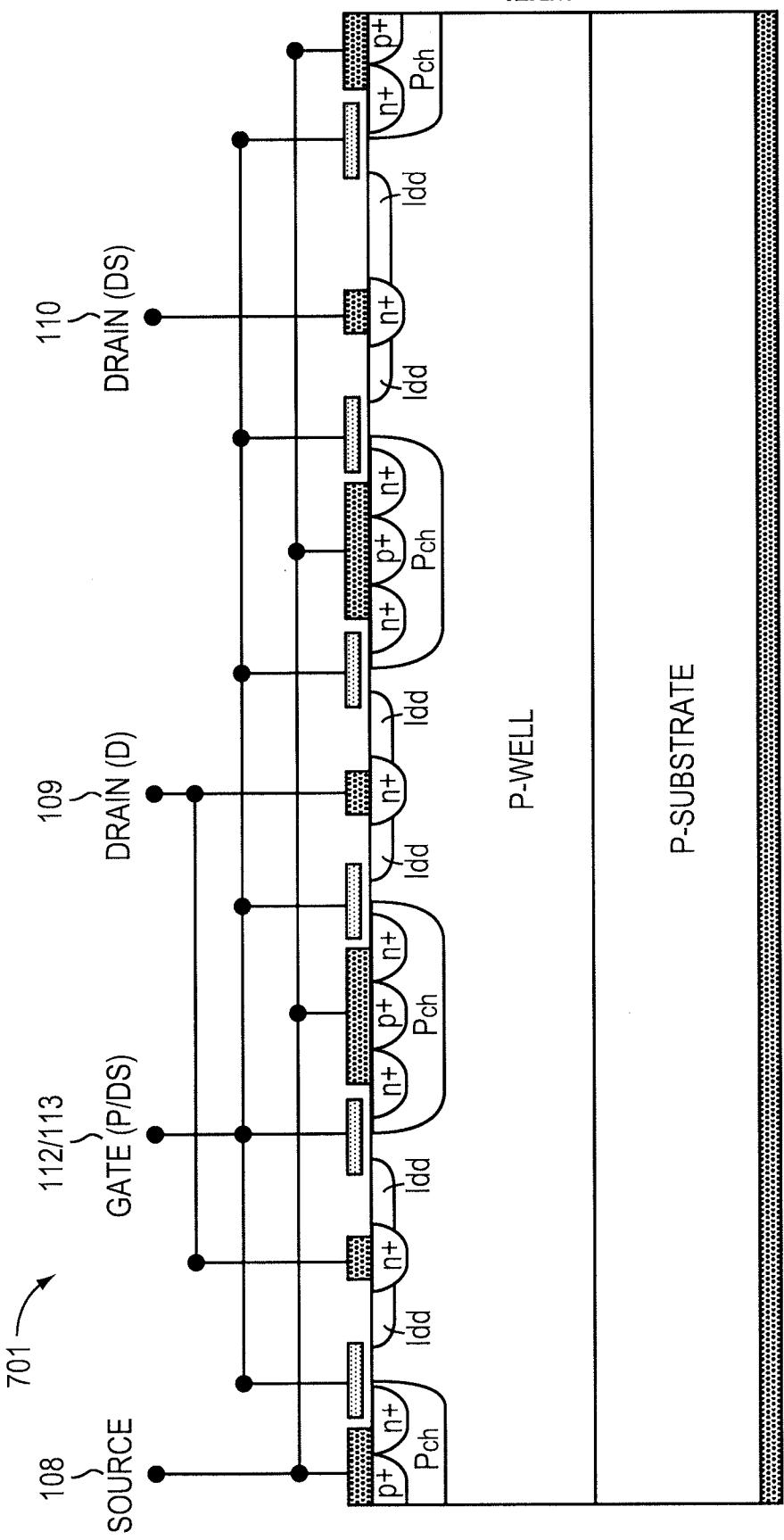


FIG. 8

2. DISCRETE POWER SEMICONDUCTOR DEVICE COMPRISED OF MULTIPLE TRANSISTORS  
WITH COMMON SOURCE AND GATE CONNECTIONS WITH ONE OR MORE TRANSISTORS  
HAVING ELECTRICALLY ISOLATED DRAIN CONNECTIONS



Title: "Monolithic Power Semiconductor Structures Including Pairs of Integrated Devices"  
Inventors: Shen *et al.*  
Serial No. 10/582,035  
Atty Docket No. GWS-009  
Attorney: Natasha C. Us  
REPLACEMENT SHEET 9 of 11

FIG. 9  
CROSS-SECTIONAL DIAGRAM OF A POWER MOSFET WITH INTEGRATED DRAIN SENSE

3. DISCRETE POWER SEMICONDUCTOR DEVICE COMPRISING  
OF MULTIPLE TRANSISTORS WITH COMMON SOURCE AND  
GATE CONNECTIONS WITH ONE OR MORE TRANSISTORS HAVING  
SUBSTANTIALLY DIFFERENT THRESHOLD VOLTAGES  
AND ELECTRICALLY ISOLATED DRAIN CONNECTIONS

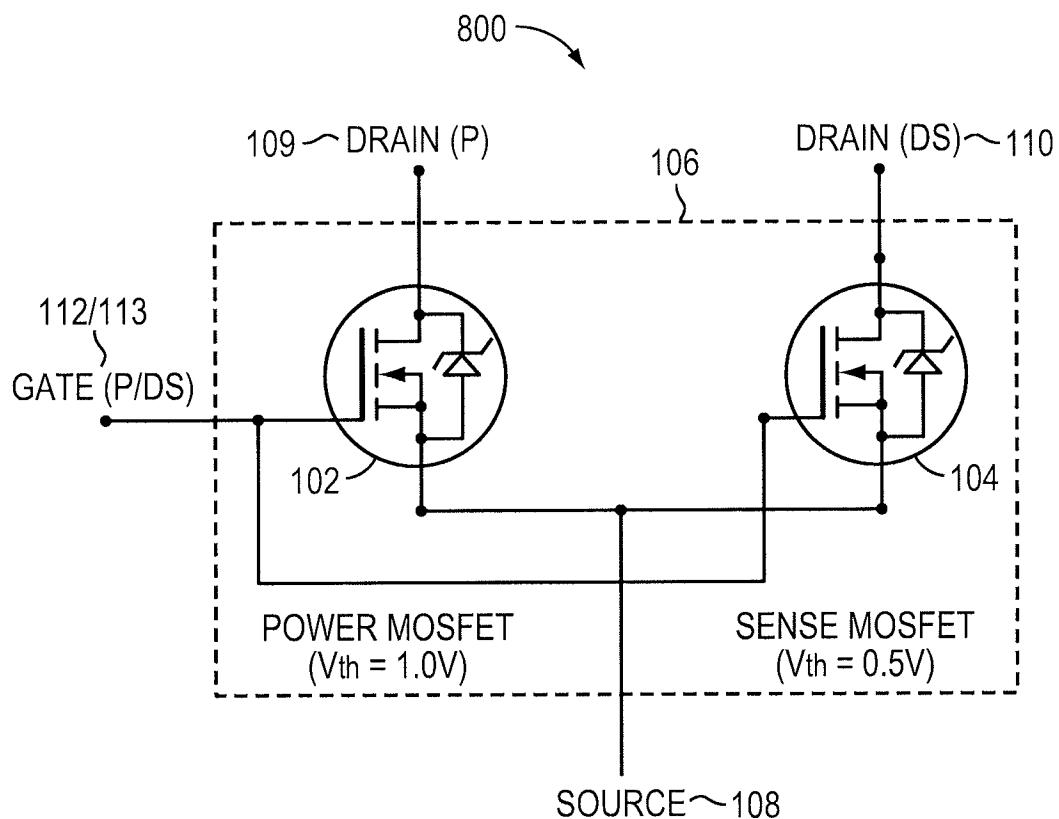


FIG. 10

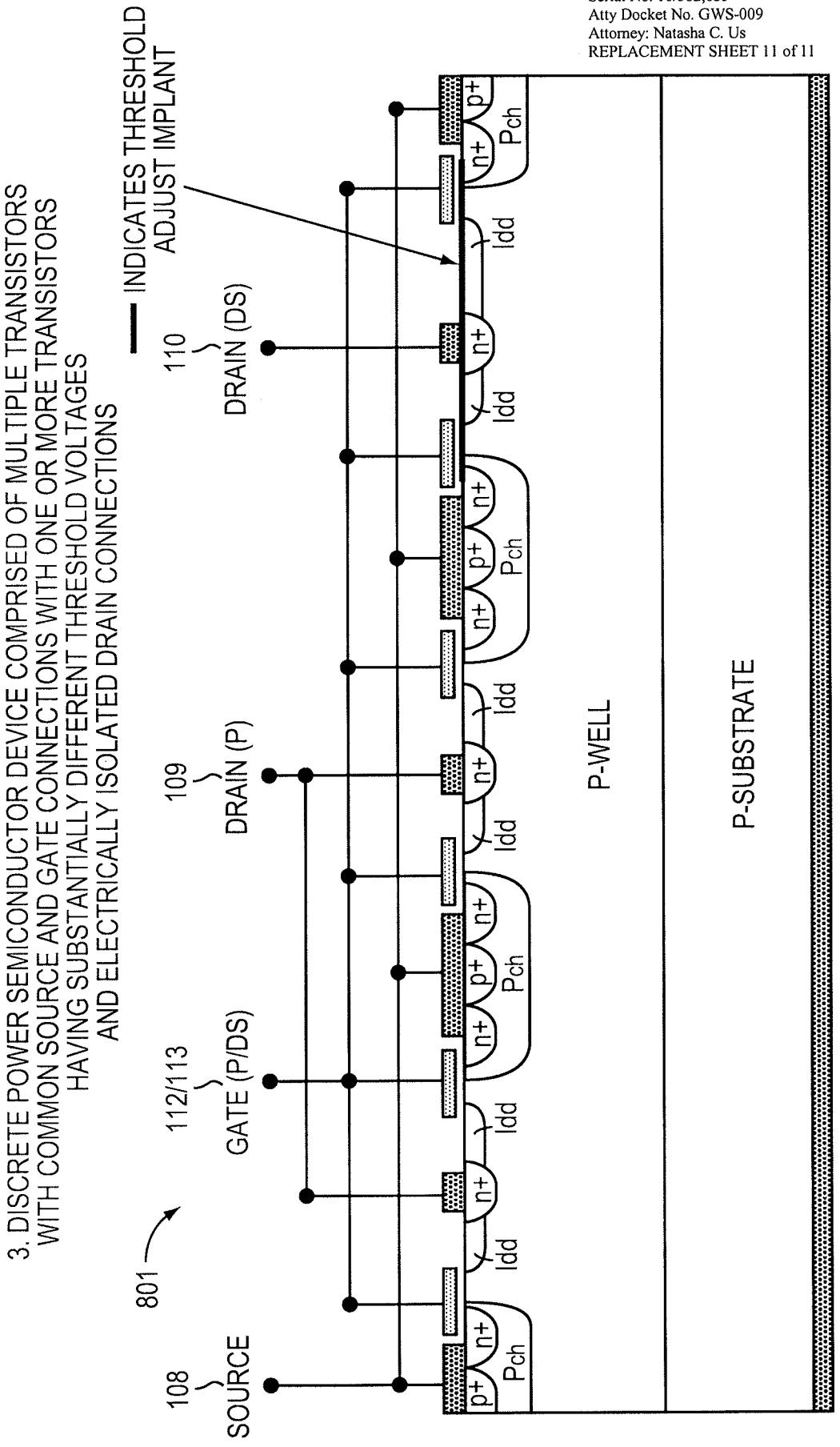


FIG. 11  
 CROSS-SECTIONAL DIAGRAM OF A POWER MOSFET WITH INTEGRATED DRAIN SENSE